

AMENDMENTS TO THE SPECIFICATION:

Please replace the paragraph beginning at page 12, line 1, with the following amended paragraph:

In FIGS. 4a-b, another method for the fabrication of photo-patterned (pixelated) polarizers in accordance with this invention is shown. The thin film polarizers are prepared by evaporation of the LLC isotropic solution onto a photo-alignment layer. In this procedure, an initially isotropic solid film exhibiting photo-induced optical anisotropy is used as an alignment layer. The photo-induced anisotropy and the absorption dichroism are formed in the alignment film as a result of the reversible (photochromic) or irreversible (photochemical reactions ~~photochemical reaction, or molecular ordering of certain organic photochemical substances~~). When the molecules absorb either polarized or non-polarized quanta of light, a molecular order is formed on the surface and in the bulk of such a photo-alignment layer. The degree of molecular order depends on the exposure energy, while the direction of the preferred molecular orientation is defined by the polarization vector and the plane of light incidence.

Please replace the paragraph beginning at page 12, line 12, with the following amended paragraph:

Due to the molecular dispersion forces between the photo-alignment film and the lyotropic liquid crystal, a homogeneous orientation of the whole lyotropic layer can be made possible. It has been discovered that certain organic photochemical stable substances, illuminated by a polarized or non-polarized light, show a much higher degree of induced molecular order than that found in an active photochemical molecular layer. The molecular order, which was evaluated by the photo-induced optical anisotropy, becomes saturated in the

photo-chromic ~~photochemical-stable~~ substances. This is contrary to the case where the molecular order is due to the photo-chemical reaction. In the latter case, the induced optical anisotropy decreases for sufficiently high exposure energy, i.e. the molecular order depends on the exposure energy critically.